

# Capacity Building Workshop, Module 2B

## Introduction

### – Project-Oriented IRWM Topics

- Project Development and Evaluation Tools
- Sustainability Concepts and Climate Change Tools

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# Introduction

- Why cover these topics if we are just trying to build capacity?
  - Project comparability
  - Find project portfolio synergies internal and external to region
  - Enhance long-term planning capabilities
  - Identify most effective alternative
  - Understand statewide priorities and preferences





# Introduction

## – IRWM Project Types

- Water supply reliability, water conservation, and water use efficiency
- Stormwater capture, storage, clean-up, treatment, and management
- Removal of invasive non-native species, the creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands
- Non-point source pollution reduction, management, and monitoring
- Groundwater recharge and management projects
- Contaminant and salt removal through reclamation, desalting, and other treatment technologies and conveyance of reclaimed water for distribution to users
- Water banking, exchange, reclamation, and improvement of water quality
- Planning and implementation of multipurpose flood management programs
- Watershed protection and management
- Drinking water treatment and distribution
- Ecosystem and fisheries restoration and protection





# Project Development & Evaluation Tools

Capacity Building Workshop, Module 2B





# Project Development & Evaluation

- Cost/Benefit Economic Analysis
- Evaluating and Articulating Multi-Project Benefits
- Technical Analysis and Justification of Benefits
- Cost Effective Analysis





## Cost/Benefit Economic Analysis

- PROJECT PHYSICAL BENEFITS
  - Expected measurable accomplishments of a project
    - » Must have multiple benefits (PRC §75026.(a))
    - » Based over the period of analysis
    - » Consistent with the provided need (e.g., meeting IRWM Plan goals and objectives)
    - » Focus on primary and secondary benefits





## Project Development & Evaluation

- Examples of physical benefits include:
  - Amount of water supply produced
  - Types and amounts of water quality improvement
  - Amount of water treated.
  - Types and amounts of environmental benefits (e.g., types and numbers of species benefited; provide information on any analysis, studies, etc.)
  - Amount of energy produced or saved
  - Amount of reduced GHG emissions

NOTE: These are **quantifiable** physical benefits; should also consider **qualitative** descriptions of physical and environmental benefits



# Project Development & Evaluation

## Example Physical Benefits Table

Table – Annual Project Physical Benefits

Project Name: \_\_\_\_\_  
Type of Benefit Claimed: \_\_\_\_\_  
Units of the Benefit Claimed : \_\_\_\_\_  
Additional Information About this Benefit \_\_\_\_\_

(a)	(b)	(c)	(d)
	Physical Benefits		
Year	Without Project	With Project	Change Resulting from Project (b) – (c)
2014			
2015			
2016			
Etc.			
Last Year of Project Life			

Comments:





# Project Development & Evaluation

## – TECHNICAL ANALYSIS OF PHYSICAL BENEFITS CLAIMED

- Describe primary and secondary benefits and address:
  - Technical Basis: Include justifying studies
  - Provide background for benefits: For example, recent water shortages, historical loss of habitat or ecosystem function, or chronic or acute water quality problems.

Have a technical studies repository website:

- Technical Reports
- Feasibility Studies
- Needs Assessments
- Expert opinion
- Local Knowledge
- Journals
- Monitoring Data
- Toolkits





## Project Development & Evaluation

### – TECHNICAL ANALYSIS OF PHYSICAL BENEFITS CLAIMED (cont.)

- Describe level of benefit claimed in context of change attributable over project lifecycle – levels of the physical benefits ***in the future***, without the project, but ***with other projects in mind***, and in the light of ***environmental change***
- Describe methods used to estimate benefits
- Identify new facilities, policies, and actions required
- Describe potential adverse physical effects
- Detail should be equal in measure with the project size

CEQA and cumulative effects analyses can be insightful when determining the levels of benefits.





# Project Development & Evaluation

## – COST EFFECTIVE ANALYSIS

- Evaluates whether the physical benefits are provided at the least possible cost.
- Information needed and questions to address
  - Types of benefits
  - Alternative methods considered
  - Reasons for not considering alternatives
  - List of alternatives and estimated costs
  - If not least cost alternative, describe **why** project is preferred
  - Describe unique benefits of alternatives
- Apply reasonableness test

